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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/598,674	09/07/2006	Jae-Jeong Yang	2017-114	8721				
52706 IPLA P.A. 3580 WILSHIRE BLVD. 17TH FLOOR LOS ANGELES, CA 90010	7590 08/30/2007		<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">COLLINS, MICHAEL</td></tr></table>		EXAMINER		COLLINS, MICHAEL	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,674

Applicant(s)

YANG ET AL.

Examiner

Michael K. Collins

Art Unit

3651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/07/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "2". Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6-8, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nulph et al. (USP 6,279,718).

Regarding claim 1, Nulph et al. disclose a feed mechanism for a vending machine (10) capable of actively coping with a change in size of products, the feed mechanism comprising:

- a cabinet (12);
- a driving unit (40) mounted on an upper portion of the cabinet;
- a transporting unit (44) driven by the driving unit and having a plurality of pockets (44a,44b,44c) for receiving the products; and
- a discharging unit (34) discharging the products transported by the transporting unit.

Regarding claim 2, Nulph et al. disclose the feed mechanism as set forth in claim 1, further comprising a sensing unit for sensing a position of each of the products (see column 5 lines 10-12).

Regarding claim 3, Nulph et al. disclose the feed mechanism as set forth in claim 1, wherein the transporting unit includes an endless belt (58) having both ends connected to each other, and a plurality of pockets (58a) disposed on the endless belt at a predetermined interval.

Regarding claim 6, Nulph et al. disclose the feed mechanism as set forth in claim 1, further comprising a spacing unit for adjusting a space for receiving the products according to the size of the products, wherein the spacing unit includes a spacing plate located in the cabinet and grasping pins fixed to the spacing plate and selectively displaced along a spacing slot (see column 4 lines 65-67 and column 5 lines 1-30 respectively).

Regarding claim 7, Nulph et al. disclose the feed mechanism as set forth in claim 6, wherein the spacing plate is composed of two spacing plates, the two spacing plates are perpendicular to each other (see column 4 lines 65-67 and column 5 lines 1-30 respectively).

Regarding claim 8, Nulph et al. disclose the feed mechanism as set forth in claim 1, wherein the discharging unit (34) is installed on a lower portion of the cabinet at a predetermined angle.

Regarding claim 12, Nulph et al. disclose the feed mechanism as set forth in claim 2, wherein the sensing unit includes a limit switch fixed on a lower portion of the cabinet, and a linkage cooperating with the limit switch (see column 9 lines 15-21).

Regarding claim 13, Nulph et al. disclose the feed mechanism as set forth in claim 1, wherein the driving unit includes a motor (48), a driving shaft (50) coupled with the motor, and a driven shaft (52) cooperating with the driving shaft (50).

Regarding claim 14, Nulph et al. disclose the feed mechanism as set forth in claim 13, wherein a driving unit holder is installed between the motor and the driving shaft to rotatably support the driving shaft, the driving unit holder being provided with a

reinforced shaft parallel to the driving shaft (see Figure 5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nulph et al. (USP 6,279,718).

Regarding claim 4, Nulph et al. disclose the feed mechanism as set forth in claim 3. However, they do not disclose a mechanism wherein the endless belt and each of the pockets are formed of a soft material. Yet, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Regarding claim 5, Nulph et al. disclose a mechanism that is obvious over the feed mechanism as set forth in claim 4, wherein all of the pockets includes a strip (see

Figure 3). However, they do not disclose a strip subjected to any one of coating and bonding with a silver nano-fiber. Yet, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

8. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nulph et al. as applied to claims 1-3, 6-8, and 12-14 above, and further in view of Merkl (USP 3,801,561).

Regarding claim 9, Nulph et al. disclose the feed mechanism as set forth in claim 1. However, they do not disclose a mechanism wherein the discharging unit includes a vibration member installed horizontally on a lower portion of the cabinet, and a vibrator vibrating the vibration member. Merkl discloses a mechanism wherein the discharging unit includes a vibration member installed horizontally on a lower portion of the cabinet, and a vibrator vibrating the vibration member. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the applicant's invention to modify Nulph et al. by including with the feed mechanism a discharging unit that includes a vibration member installed horizontally on a lower portion of the cabinet, and a vibrator vibrating the vibration member, as disclosed by Merkl, for the purpose of assuring proper feeding (see column 1 lines 45-46).

Regarding claim 10, Nulph et al. disclose the feed mechanism as set forth in claim 1. However, they do not disclose a mechanism wherein the discharging unit includes a vibrator installed on a lower portion of the cabinet, the vibrator including a motor, a gear box coupled with the motor and a vibration member coupled with the gear

box. Merkl discloses a mechanism wherein the discharging unit includes a vibrator installed on a lower portion of the cabinet, the vibrator including a motor, a gear box coupled with the motor and a vibration member coupled with the gear box. horizontally on a lower portion of the cabinet, and a vibrator vibrating the vibration member.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the applicant's invention to modify Nulph et al. by including with the feed mechanism a discharging unit that includes a vibrator installed on a lower portion of the cabinet, the vibrator including a motor, a gear box coupled with the motor and a vibration member coupled with the gear box, as disclosed by Merkl, for the purpose of purpose of assuring proper feeding (see column 1 lines 45-46).

Regarding claim 11, Nulph et al. in view of Merkl disclose a feed mechanism that is obvious over the feed mechanism as set forth in claim 10. However, neither discloses a mechanism wherein the vibration member includes at least one coil spring inclined at a predetermined angle. Yet, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Allowable Subject Matter

9. Claims 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

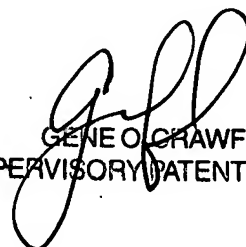
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Collins whose telephone number is (571) 272-8970. The examiner can normally be reached on 8:30 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.C.
8/29/2007


GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER